Yong Kin, Chong

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EDUCATION

UNIVERSITY OF CALIFORNIA, SAN DIEGO — La Jolla, CA
Master of Computer Engineering — Sep. 2024 - Expected Dec. 2025

TSINGHUA UNIVERSITY — Beijing, China
Bachelor in Electronic Information Science and Technology — Sep. 2017 - Jun. 2021
(Interdisciplinary program in Computer Science, Software Engineering, Electronic Engineering)
- 2017 Electrical Engineering Award for Outstanding Performance; Tsinghua-Inditex Scholarship; 4-year Outstanding Malaysian Award

SKILLS

Programming Languages — C/C++, Python, JavaScript, TypeScript, Rust, Shell, SQL, HTML, CSS, UE Blueprints
Frameworks and Tools — React, MongoDB, GraphQL, REST API, Git, Docker, Kubernetes, CI/CD, AWS, Linux, PyTorch, LangChain

WORK EXPERIENCE

Amazon Web Service (AWS) | Software Engineer Intern — Seattle | June 2025 - Sep 2025
Optimized deep learning container infrastructure for global AI/ML workloads, now powering all future builds and releases of the team.
- Revamped the deep learning container **docker build engine**, achieving a 16% reduction in average build time from 31 to 26 mins.
- Implemented ECR docker **layer caching**, resulting in an additional 90% reduction in subsequent build times.
- Enhanced CI/CD visibility via real-time log streaming, coordinated multi-team rollout, and seamless adoption with benchmark scripts.

LP-Research Inc. | Software Engineer — Tokyo | Jul 2021 - Jul 2024
Developed a multi-user large-scale VR solution, deployed across design centers and showcased at SIGGRAPH 2023.
- Improved system modularity and **multithreaded** network communications using ZeroMQ and factory design patterns. Decoupled nodes with a pub/sub system, achieving a 29% code reduction. Ensured stable releases with **CI/CD** pipeline and **address sanitizer**.
- Integrated **Protobuf** for efficient sensor data transfer, enabling streaming of 20+ data types at 500 to 1,000 Hz.
- Customized ALVR for 2-stage optical-IMU fusion, reducing tracking vibration from 3° to 0.1°. Built Android releases for **Meta Quest Pro** using **CMake**, **Conan**, shared libraries, and **NDK**.
- Developed C++ data playback and monitoring tools, streamed over **VRPN**, **ZeroMQ,** and **WebSocket**, saving 1,000+ hours in testing.
- Reduced setup time from 15 minutes to 5 minutes by creating **automation scripts** and **a GUI in Tauri**.

*Core maintainer of **OpenZen** , an open-sourced sensor library for streaming data.*
- Architected a sensor manager for configuration and real-time logging, with auto-crash recovery as system service.
- Dockerized deployment with **Grafana** and **MQTT** broker, achieving 12,000+ packets per second on edge server.
- Established an automated **Docker** release pipeline, reducing release cycle by 15 minutes per iteration.
- Developed language bindings via **SWIG**, providing sample projects in C, C++, Python, Unity, and ROS 1/2 for cross-platform support on Windows and Linux.

ACY Finance | Lead Full-Stack Developer — Remote (Singapore) | Sep 2021 - Sep 2023
Led development of a decentralized trading platform, coordinating teams, and ensuring code meet business requirements.
- Launched a **React** UI for 20,000+ users with real-time data updates via **WebSocket** and **The Graph protocol**, utilizing **Styled Components**, **Ant Design** and **custom hooks** to reduce redundant components and improve maintainability.
- Refactored state hooks with **Redux**, consolidating states into 8 global slices, and enforcing code quality using **ESLint**.
- Optimized data retrieval speed by reducing the query response time by 0.5 seconds through **Apollo client** caching and **useSWR**.
- Managed timelines and tasks with **Jira**, increasing team efficiency and reducing average code delivery time from 10 days to 7 days.

*Architected backend services for DeFi analytics on an **Express.Js** framework.*
- Built a **Subgraph** tracking the top 5,000+ trading pairs with 7 financial features extracted on each transaction.
- Automated insights generation for 15+ API endpoints, producing over 500 daily analytics and airdrop lists stored in MongoDB.
- Developed a **multithreaded Python** market maker framework with sub-100ms tickers across 8 exchanges, deployed on **AWS EC2**.
- Configured **Jenkins pipelines** for service deployment, with logging and **Telegram bot** alerts, decreasing crash potential by 20%.

PROJECTS

Hippocratic Island – Taiko **Best App** (ETHTokyo 2023 Hackathon) | Lead Developer (4-member team) — Apr 2023
- Built a Lens protocol-based React gated discussion platform, designed for users with sensitive health conditions.
- Led the project architecture, rapidly prototyped with Chakra UI, set up a test chain for simulation, completing development in 2 days.

De-Chat – **1st Place** for XMTP Prize (ETHOnline 2022 Hackathon) | Lead Developer (5-member team) — Sep 2022
- Developed a web3 React chat app with XMTP, supporting in-chat token transfer, mobile notifications, and video calling.
- Implemented both the UI and Solidity functions, adding support to 5 messaging types including image and real-time video.

Household Electricity Load Forecasting | Research Assistant — Jan 2021
- Clustered and built Keras models to forecast single-household load patterns, optimizing energy scheduling systems.
- Enhanced a State-of-the-art LSTM-based model's accuracy by 2% through advanced clustering techniques and feature engineering.